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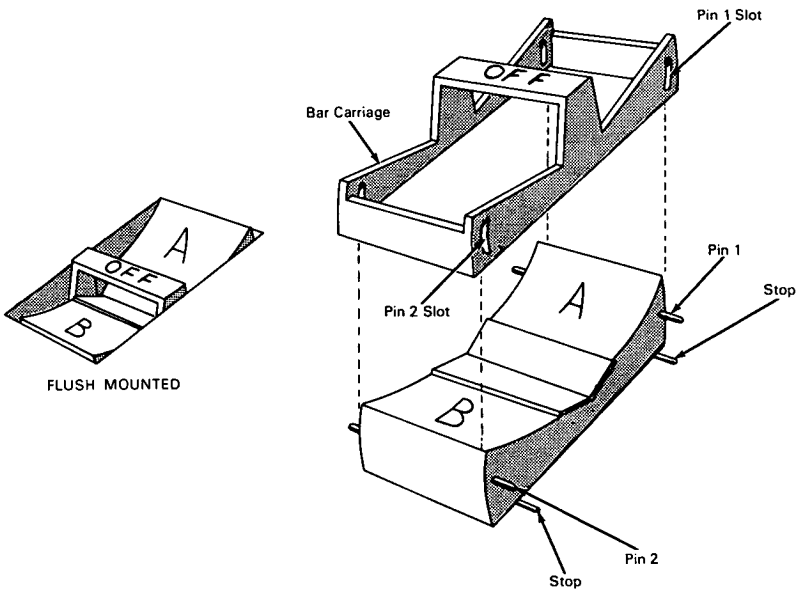
NASA TECH BRIEF

Three-Position Rocker Switch Actuator Has Positive Centering



The problem: In certain activities, cumbersome gloves, sometimes pressurized as in high-altitude aircraft, limit the sense of touch of the operator who must use three position switches, such as toggle, rocker, or pushbutton. In this situation there is a danger of overriding the center position, which could have undesirable results.

The solution: A three-position rocker switch actuator that provides positive center positioning to inhibit possible override.

How it's done: When properly mounted to a three-position switch, the actuator is operated in the following manner. Depressing rocker tab A causes pin 1 to move downward in its slot and the pivoted rocker causes tab B to rise an amount equal to the downward travel of tab A. With pin 2 being normally at the top of its slot, the bar carriage rises at this end along with tab B. This action displaces the *off* bar upward by a slightly lesser amount and the switch is now positioned so that a circuit is controlled.

To control the second circuit and release the first, tab B is depressed and an action opposite to that described above takes place.

To return the switch to center position so both circuits are released, the *off* bar is pressed. In the case of tab A having been previously depressed, this applies pressure to pin 1 through the bar carriage and pin 2 slot to force tab B downward to its center or neutral position where its further downward movement is arrested by the stops.

(continued overleaf)

Note: Switch position is visually identified by rocker position and functions can be shown on tabs and bar.

Source: Robert L. Bogley of North American Aviation, Inc., under contract to Manned Spacecraft Center (MSC-261)